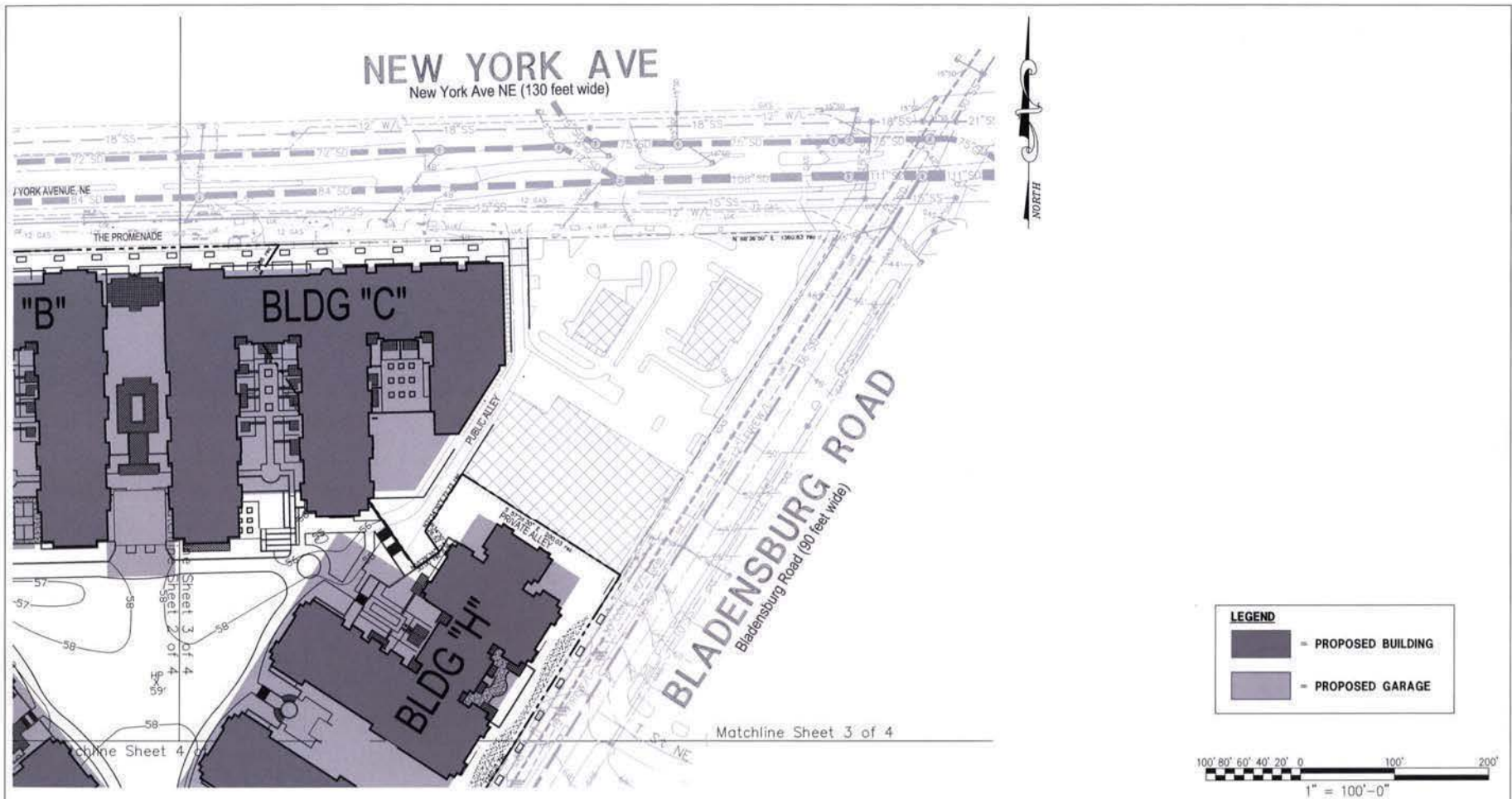




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Sheet Title:
**SITE PLAN
EAST**

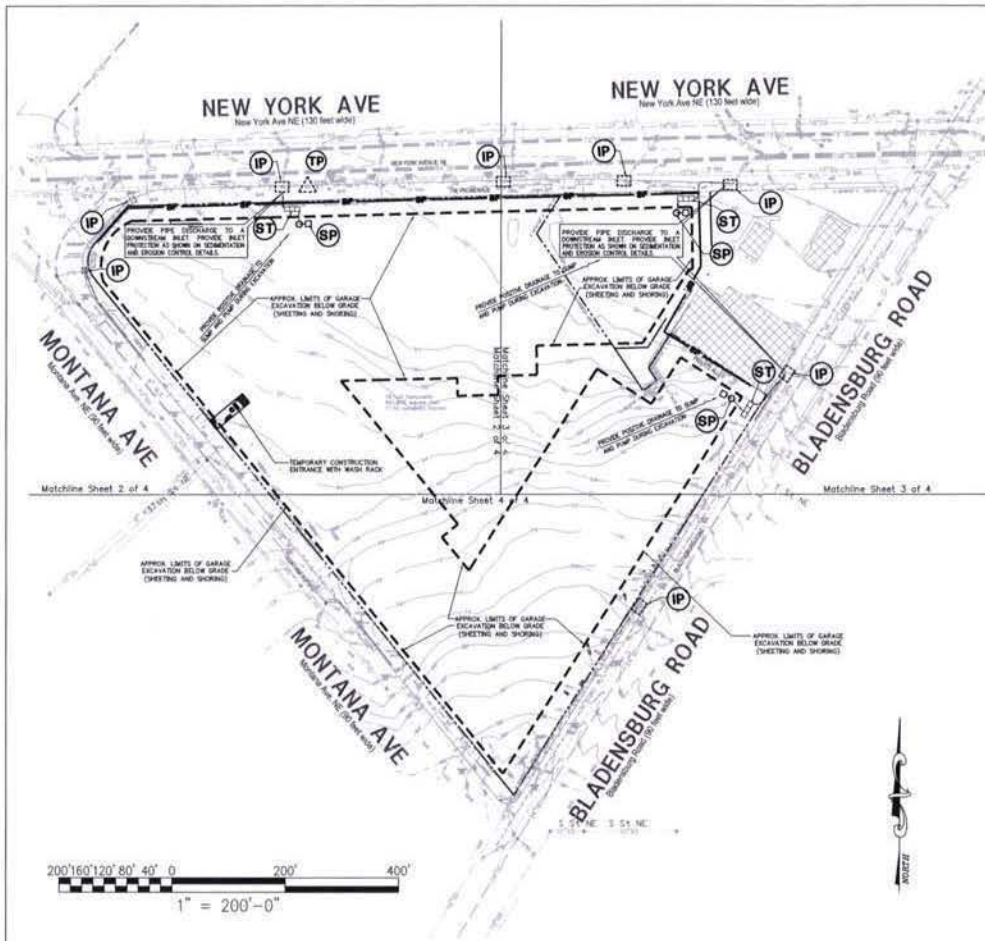
Scale: 1:100

Date: 08-01-08

Job No:
144-05

Sheet No:
C-07

ZONING COMMISSION
District of Columbia
CASE NO.06-15
EXHIBIT NO.26A3



CONSTRUCTION AND STABILIZATION SEQUENCE:

1. INSTALL SEDIMENT AND EROSION CONTROL MEASURES INCLUDING STABILIZED CONSTRUCTION ENTRANCE, WASH RACK, INLET PROTECTION, SILT FENCE, AS INDICATED ON THE SHEET. SEE SHEET SEDIMENT AND EROSION CONTROL DETAILS.
2. SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR PRIOR TO COMMENCING ANY OTHER LAND DISTURBING ACTIVITIES.
3. MAINTAIN TEMP AS INDICATED ON CONSTRUCTION PLAN.
4. INSTALL SITE IMPROVEMENTS AS INDICATED ON CONSTRUCTION DOCUMENTS FOR THE PROPOSED BUILDING.
5. AT THE COMPLETION OF CONSTRUCTION AND AFTER THE INSPECTOR'S APPROVAL, ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE REMOVED.

NOTE:

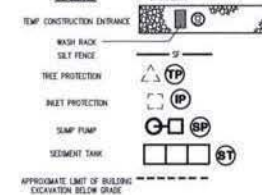
CONTRACTOR TO PROVIDE CHAIN LINK FENCE AT PERIMETER OF THE EXCAVATION AREA.

INSTALL SILT FENCE AT PERIMETER TO REMAIN IN PLACE UNTIL BELOW GRADE EXCAVATION HAS BEGUN UNLESS OTHERWISE APPROVED BY THE INSPECTOR.

DUST CONTROL NOTES:

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STREET DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE.
 - B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER.
 - C. DISCHARGE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8 K PA) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS FONDING.
6. FOR WATER APPLICATION TO SOIL SURFACES DURING EXCAVATION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND NOZZLES.
 - B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE EXCAVATION AREA CAN BE MOISTENED WITHOUT INTERFERING WITH EXCAVATION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS FONDING.
 - C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND SITE BOUNDARIES.

LEGEND



CONSTRUCTION DATES:

* EXACT BEGINNING AND END OF CONSTRUCTION IS TO BE ESTABLISHED BY THE OWNER.

TOTAL DISTURBED AREA

AREA = 697,874.00 SF = APPROX. 16.02 ACRES.

NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF SHEETING AND SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING, AND UNDERPINNING DESIGNED BY THE CONTRACTOR'S STRUCTURAL ENGINEER LICENSED IN THE DISTRICT OF COLUMBIA SHALL BE PROVIDED AS NECESSARY TO ENSURE THEIR SUPPORT.

SEDIMENT CONTROL APPROVAL:

PLAN NUMBER:

THIS APPROVAL IS FOR GRADING AND SEDIMENT CONTROL ONLY. PERMITEE/ CONTRACTOR IS REQUIRED TO CONSTRUCT DESIGN FEATURE SHOWN HEREON. HE SHALL NOTIFY THIS OFFICE AT NUMBER LISTED BELOW AT LEAST 24 HOURS BEFORE START OF GRADING ACTIVITY, AND WITHIN TWO WEEKS AFTER COMPLETION OF PROJECT FOR FINAL INSPECTION.

DATE:

EROSION AND SEDIMENT CONTROL BRANCH

FOR FURTHER INFORMATION, PLEASE CALL:
GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH ADMINISTRATION
WATERSHED PROTECTION DIVISION

51 N. STREET, N.E., 5TH FLOOR
WASHINGTON, D.C. 20002
FAX NO. (202) 535-1364
TEL NO. (202) 535-2240

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Sheet Title:
**SEDIMENT & EROSION
CONTROL PLAN
(OVERALL)**

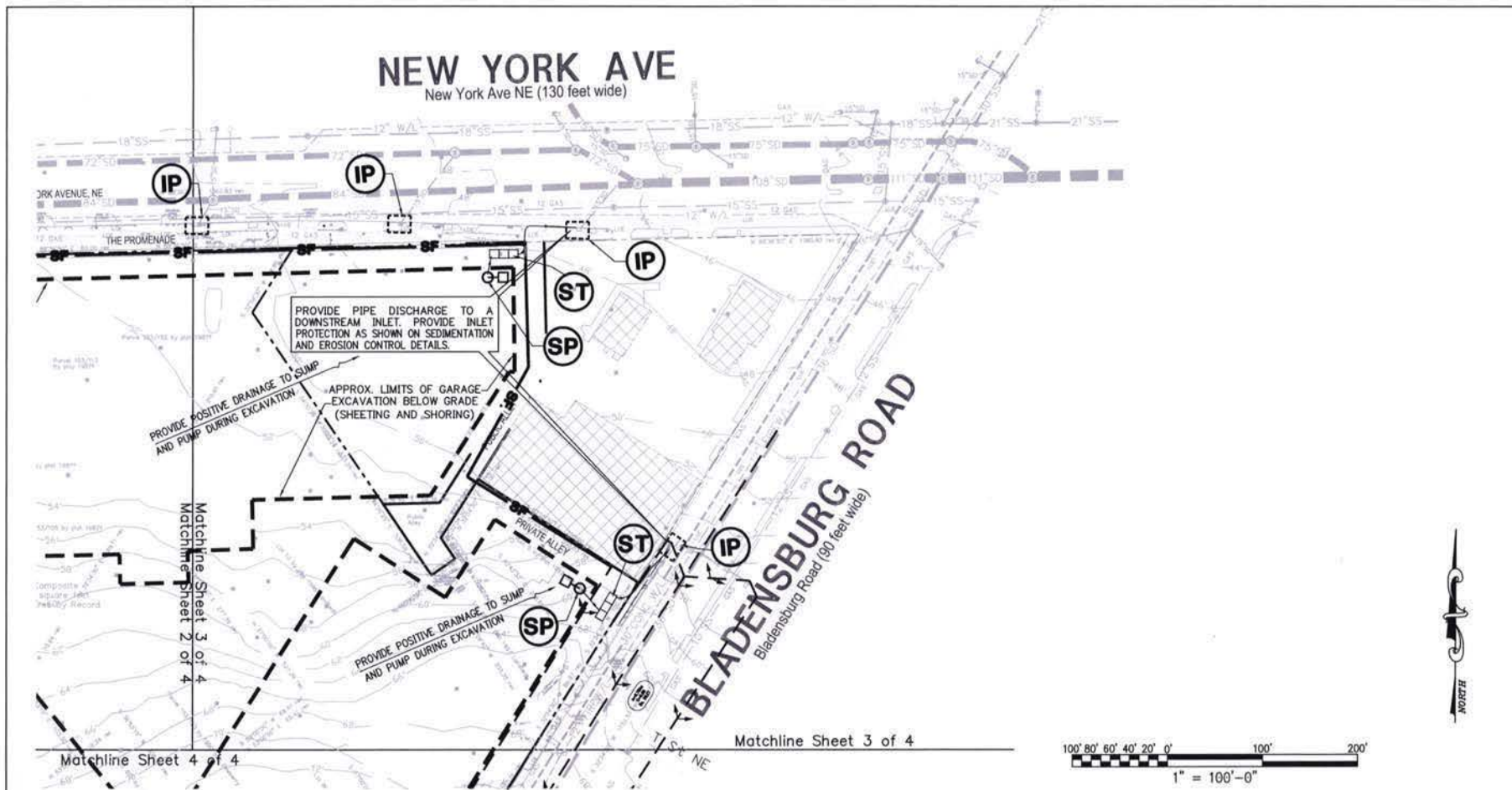
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Date: 08-01-06

Job No:
144-05

Sheet No:

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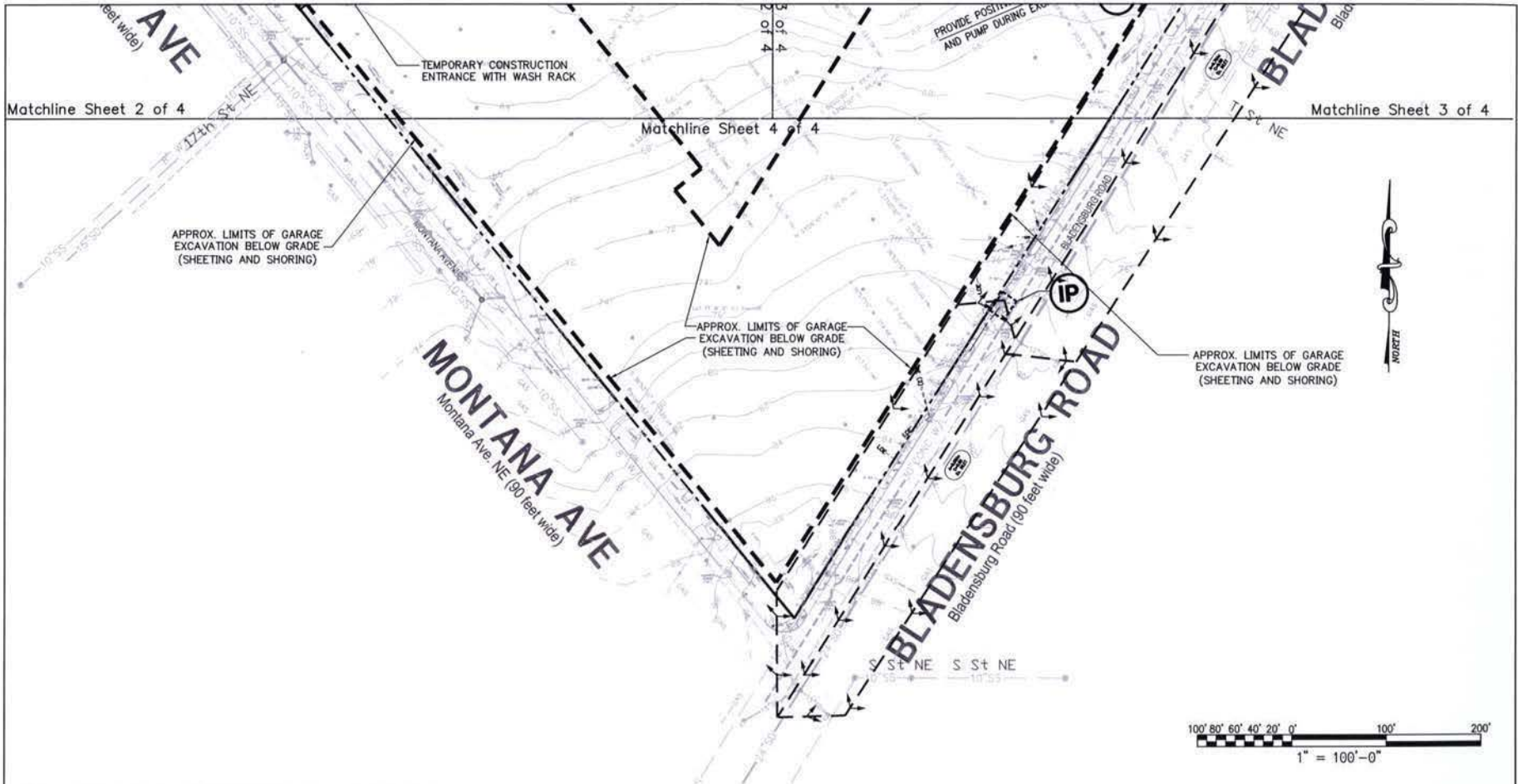
WASHINGTON DC

Sheet Title:
**SEDIMENT & EROSION
CONTROL PLAN
(EAST)**
Scale: 1" = 100' Date: 06-01-06

Job No:
144-05

Sheet No:

C.11



SEDIMENT AND EROSION CONTROL ONLY!!



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Sheet Title:
**SEDIMENT & EROSION
CONTROL PLAN
(SOUTH)**

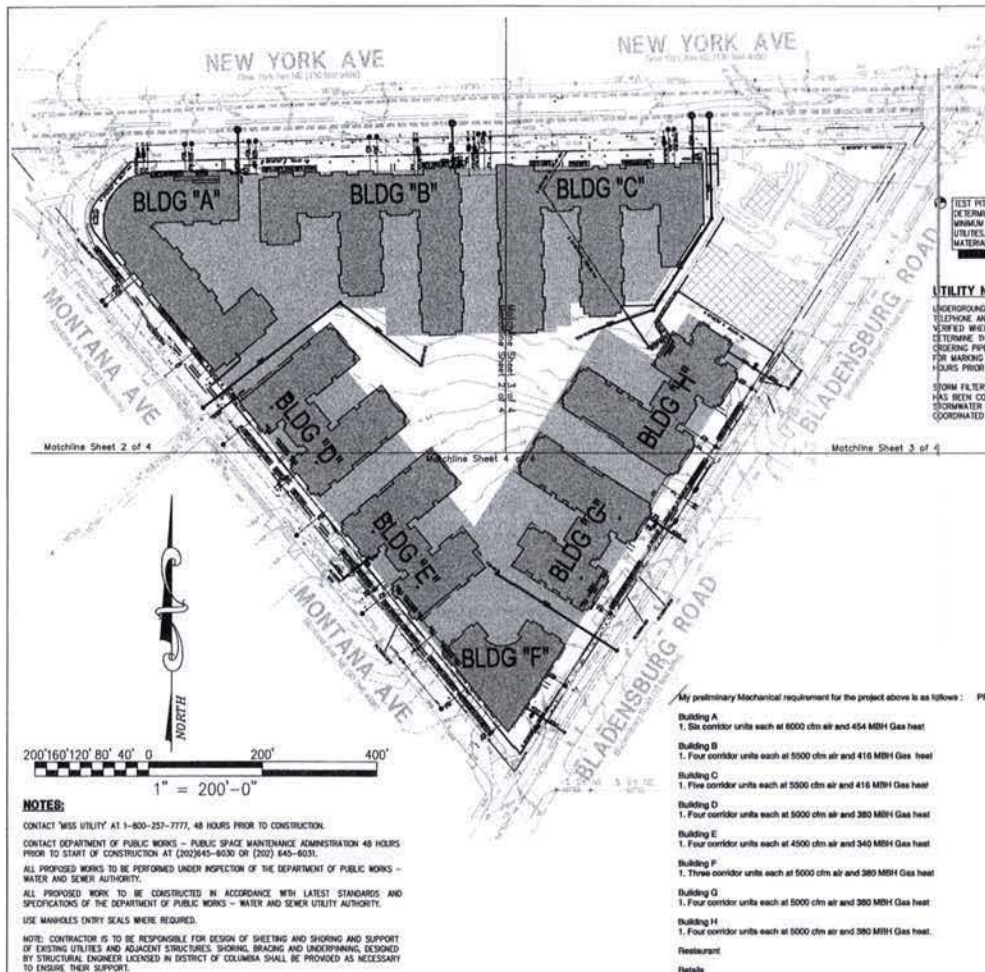
Scale: 1 : 100 Date: 08-01-06

Job No: 144-05

Sheet No:

C.12





UTILITY NOTE:
 UNDERGROUND UTILITY LOCATIONS, INCLUDING WATER, STORM DRAINAGE, SANITARY SEWER, ELECTRIC, TELEPHONE AND GAS WERE TAKEN FROM AVAILABLE CITY UTILITY RECORDS, OWNER RECORDS AND FIELD SURVEY WHERE POSSIBLE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY AND DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO COMMENCING WORK OR CROSSING PIPE MATERIALS AND STRUCTURES. REPORT ANY DISCREPANCY TO THE PROJECT MANAGER. FOR MARKING LOCATIONS OF EXISTING UTILITIES, CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO ANY EXCAVATION NOTIFY DEPARTMENT OF PUBLIC WORKS.
 STORM FILTERS HAVE BEEN DESIGNED TO MEET DC DEPARTMENT OF HEALTH REQUIREMENTS. THE DESIGN HAS BEEN COORDINATED WITH STORMWATER 360 (SUPPLIER). THE CONTRACTOR SHALL USE EITHER STORMWATER 360 PRODUCTS OR APPROVED EQUIVALENT BY DC-004. THIS EFFORT MUST BE COORDINATED WITH DEPARTMENT OF HEALTH.

GENERAL NOTES:

- EXISTING CONDITIONS WERE PRODUCED FROM SURVEYS PREPARED BY EX IN 2006 AND PUBLIC RECORDS.
- VERIFY LOCATION OF EXISTING UTILITIES BEFORE PROCEEDING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE, DC/SPW, 703-7632 OR 703-8022 AND "MISS UTILITY" (800-257-7777) 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATIONS. HAND DIG TEST PITS AT ALL UTILITY CROSSINGS AND DETERMINE EXACT CLEARANCE OF ALL PROPOSED INSTALLATIONS WELL IN ADVANCE OF CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS WITH PLAN ELEVATIONS.
- WORK AND MATERIALS IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE APPLICABLE DC/SPW STANDARDS AND SPECIFICATIONS. ON-SITE WORK AND MATERIALS SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE D.C. PLUMBING CODE.
- DIMENSIONS ARE TO FACE OF WALL AND CURB EDGE OF WALK AND PAVEMENT, CENTERLINE OF COLUMN, PIPE AND UTILITY STRUCTURE, UNLESS OTHERWISE NOTED.
- FRAMES AND COVERS OF EXISTING STRUCTURES TO BE ADJUSTED TO MATCH NEW PROPOSED GRADES.
- OMISSIONS AND/OR ADDITIONS OF UTILITIES FOUND DURING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY INFORMATION CONCERNING FOUND UTILITY, NOT SHOWN ON PLANS.
- TEST PITS ARE REQUIRED AT ALL LOCATIONS WHERE PROPOSED UTILITIES CROSS EXISTING UTILITIES. INVESTIGATIONS TO DETERMINE HORIZONTAL LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES. THE ENGINEER IS TO BE NOTIFIED OF THIS INFORMATION.
- IF A MINIMUM VERTICAL CLEARANCE CAN NOT BE MAINTAINED AT UTILITY CROSSING, THE CONTRACTOR IS TO NOTIFY THE ENGINEER BEFORE PROCEEDING WITH WORK.
- TRANSITION CURBS, GUTTER, PAVING AND SIDEWALK TO MEET EXISTING IN LINE AND ON GRADE OR AS DIRECTED BY ENGINEER.
- ALL DEBRIS AND EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED OFF-SITE LOCATION.
- ALL ON-SITE WATER LINES TO HAVE A MINIMUM COVER OF 4'-0". WATER FITTINGS SHALL BE PROPERLY TIED AND ANCHORED, PER DPM STANDARDS.
- WHERE PORTIONS OF EXISTING BITUMINOUS OR CONCRETE PAVING ARE TO BE REMOVED, THE EXISTING PAVEMENT SHALL BE SAW-CUT.
- REMOVE FRAMES AND COVERS OF SEWER MANHOLE/WALLETS AND/OR WATER MAIN VALVE CASTINGS TO BE ABANDONED AND FILL TO GRADE.
- ALL SEGMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
- NOTIFY WASHINGTON GAS AT 202-750-4205, 48 HOURS PRIOR TO ANY EXCAVATION IN THE VICINITY OF TRANSMISSION MAIN. FOR FURTHER INFORMATION OR PROBLEMS, CONTACT MR. CHUCK WHEATLEY AT WASHINGTON GAS AT 703-750-4205.
- PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 1 FOOT VERTICAL CLEARANCE BETWEEN 12" DIAMETER AND SMALLER DISTRIBUTION EXISTING GAS FACILITIES AND THE PROPOSED FACILITIES.
- PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 2 FEET VERTICAL CLEARANCE BETWEEN 16" DIAMETER OR GREATER TRANSMISSION GAS FACILITIES AND THE PROPOSED FACILITIES.

NEW YORK AVENUE ARBORETUM PROJECT

DATE: 10/10/2008 14:17

BUILDING	UNITS	WSEU PER UNIT*	TOTAL DOMESTIC GPM*	TOTAL DOMESTIC GPM*	COOKING TOWER GPM*	COOKING TOWER GPM*	COOKING TOWER GPM*	TOTAL SUPPLY GPM*	SANITARY DRAINAGE GPM*
A	222	4.68	1039.56	1039.56	1039.56	1039.56	1039.56	1039.56	1039.56
B	340	4.68	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20
C	340	4.68	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20
D	340	4.68	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20
E	340	4.68	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20
F	340	4.68	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20	1591.20
RESTAURANT	224	4.68	1048.32	1048.32	1048.32	1048.32	1048.32	1048.32	1048.32
TOTAL	1	36.5	36.5	43.5	7,303,440	7,303,440	7,303,440	7,303,440	7,303,440

FOOTNOTE A: Based from Table E1018 (PC 2003) Appendix E

1 BATH GROUP 2.8
 10 BATH GROUP 1.4
 SEWERMOWER 1.4
 KITCHEN SINK 1.4
 CLOTHES WASHER 1.4
 TOTAL 63.7 wsf

FOOTNOTE B: Based from Table E1018 (PC 2003) Appendix E

FOOTNOTE C: Based on 24 Hour Peak Demand Operation

FOOTNOTE D: Based on 24 Hour Continuous Operation

FOOTNOTE E: Assumed as: supply volume + drainage volume

FOOTNOTE F: Assumed as: 12 Hour operation mode for Cooling Tower

FOOTNOTE G: Health Club

8 BATHS 8

8 LAV 8

1 INC. FLUSH VALVE 1

1 URINAL 1

2 EPC 2

TOTAL 23.5 wsf

GRAND TOTAL FOR THE WHOLE JOB:
 DOMESTIC WATER 7,303,440 GALLONS PER DAY
 SANITARY DRAINAGE 7,303,440 GALLONS PER DAY



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Sheet Title:
**SITE UTILITY PLAN
 OVERALL**

Scale: 1" = 200' Date: 08-01-08

Job No:
 144-05

Sheet No:
C.14



DC/WASA GENERAL NOTES:

1. NOTIFY DC/WASA ONE WEEK PRIOR TO START OF CONSTRUCTION, UTILITY INSPECTION SECTION AT 200-785-1277, WATER SERVICES 200-612-3460 OR 3460 AND SEWER SERVICES 200-264-3824 OR 3823.
2. DEVELOPERS, CONTRACTORS AND PLUMBERS MUST SUBMIT FINAL CONSTRUCTION AS-BUILT INFORMATION TO APPROPRIATE DC/WASA INSPECTORS FOR REVIEW AND APPROVAL.
3. ONCE THE WASA INSPECTOR APPROVES THE AS-BUILT, A COPY MUST BE SUBMITTED TO THE DOCUMENTS AND PERMITS OFFICE AT ROOM 303 AND THE WATER AND SEWER DESIGN SECTION AT 5000 OVERLOOK AVENUE, S.W., 5TH FLOOR.
4. UNDER DC/WASA CUSTOMER FEES AND CHARGES, CONTRACTORS, PLUMBERS, OWNERS ARE RESPONSIBLE FOR EDUCATIONS, BACKFILLING, REPAIRING AND RESTORATION OF PUBLIC SPACE FOR STREET AND SIDEWALK CUTS, FOR NEW UTILITIES, CONNECTIONS, TAPS AND ABANDONMENT OF SERVICES WITHIN PUBLIC SPACE UNDER DC/WASA INSPECTION. DC/WASA IS NOT RESPONSIBLE FOR FINAL RESTORATION OF STREET AND SIDEWALK CUTS PERFORMED.

METER & METER TRANSMITTING DEVICES NOTES:

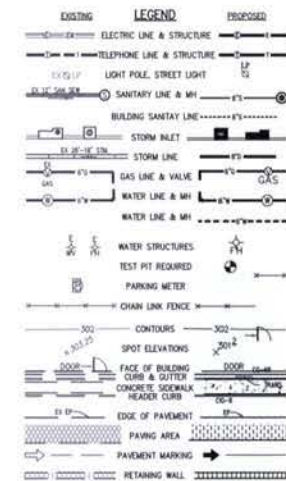
- THE AUTHORITY HAS INSTALLED A FIXED NETWORK AUTOMATIC METER READING SYSTEM. THIS SYSTEM WILL ELIMINATE THE REQUIREMENT TO READ METERS MANUALLY. METERS INSTALLED BY WASA OR PRIVATE OWNERS OF METERS WILL NEED TO MEET THE FOLLOWING SPECIFICATIONS IN ORDER FOR WASA TO READ METERS AUTOMATICALLY:
1. METERS, INSTALLATIONS AND INSPECTIONS MUST COMPLY WITH ALL DCMR CODES AND SPECIFICATIONS.
 2. ALL NEW METERS INSTALLED, INCLUDING PRIVATELY OWNED METERS MUST BE "TRUE ABSOLUTE ENCODER" TYPE METERS OR "DIRECT-READ" METERS THAT CONVERT METER READINGS TO DIGITAL PULSES FROM THE METER REGISTERS.
 3. ALL METER REGISTERS SHOULD BE ABLE TO CONVERT ALL THE DIALS IN THE METER REGISTER TO DIGITAL PULSES.
 4. THE METERS MUST MEASURE WATER IN 100 CUBIC FEET INCREMENTS. ALL NEW METERS MUST HAVE A METER TRANSMITTING UNIT ATTACHED TO THE METER REGISTERS, SEALED SO AS TO MAKE IT WATER TIGHT. THE TRANSMITTING UNIT SHOULD BE PROGRAMMABLE, TO DC/WASA'S FCC APPROVED RADIO FREQUENCY, AND COMPATIBLE WITH HEXAGRAM, INC. HARDWARE AND SOFTWARE.
 5. ALL NEW METERS 3" OR GREATER MUST HAVE TEST PLUG IN THE METER APPROPRIATE TO MANUFACTURER'S SPECIFICATIONS.
 6. ALL NEW METERING CONFIGURATIONS SHOULD HAVE STRAINER WHERE APPROPRIATE TO MANUFACTURER'S SPECIFICATIONS.

OUTSIDE LOCATIONS:

- A. THE NEW METER LID MUST BE OF A COMPOSITION AND TENSILE STRENGTH SO AS TO PERMIT A RADIO SIGNAL TO PROPAGATE THROUGH THE METER LID AND SECURE THE METER PIT, AGAINST LIGHT VEHICLE TRAFFIC AND PEDESTRIAN FOOT TRAFFIC. LARGE METER INSTALLATIONS MUST HAVE METER LOGS THAT MAY WITHSTAND HEAVY VEHICLE TRAFFIC.
- B. THE RADIO-TRANSMITTING DEVICE MUST BE SECURELY ANCHORED TO THE UNDERSIDE OF THE NEW TRANSMITTER PROXIMITY METER LID, SO AS TO PERMIT A RADIO SIGNAL TO COMMUNICATE WITH A DATA COLLECTION UNIT.
- C. THE RADIO-TRANSMITTING DEVICE MAY ALSO BE INSTALLED THROUGH THE EXISTING CAST IRON METER LID OR A NEW CAST IRON METER LID SO AS TO PERMIT A SIGNAL TO COMMUNICATE WITH A DATA COLLECTION DEVICE AND POSE NO TRIPPING HAZARD.

APPROVED METERS, METER LIDS AND MTU CURRENTLY USED BY DC/WASA:

1. HEXAGRAM INC. METER TRANSMITTING UNIT.
2. ABB WATER METERS INC. WITH MTU PERMANENTLY POTTED AT THE FACTORY - MODEL C3000 2"-8" COMPOUND METERS.
3. AINWACAST INC. - METER LID 21 1/2" METER LID MAY NEED TO BE HEAVY DUTY CAST IRON WITH THE RADIO TRANSMITTING DEVICE INSTALLED THROUGH THE EXISTING CAST IRON METER LID TO ALLOW REMOVAL OF THE LARGER SIZE METERS.



PROPOSED UTILITY KEYNOTE:

1. NEW 8" DIP CLASS 52 DOMESTIC SERVICE PER DC/WASA STANDARDS AND SPECIFICATIONS.
2. NEW 8" DIP CLASS 52 FIRE SERVICE PER DC/WASA STANDARDS AND SPECIFICATIONS.
3. NEW FIRE SERVICE AND DOMESTIC WATER VALVE CASING PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. W/20.01.
4. NEW PVC SCHEDULE 40 SANITARY SENDER PER DC/WASA STANDARDS AND SPECIFICATIONS.
5. NEW 4" DIAMETER DROP MANHOLE WITH DOCKHOUSE BASE PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. S/20.01 AND S/20.01.
6. PROPOSED WATER METER PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. W/20.01 FOR DETAIL.
7. PROPOSED ELECTRIC CONDUIT REFER TO ELECTRICAL DRAWINGS FOR DETAILS AND ACTUAL LOCATION CONTRACTOR TO COORDINATE POSSIBLE ROUTING WITH PEPCO.
8. NEW TELECOM LINE REFER TO ELECTRICAL DRAWING FOR DETAILS. CONTRACTOR TO COORDINATE REQUIREMENTS AND POSSIBLE ROUTING WITH VERIZON.
9. NEW STORMWATER STRUCTURES. PLEASE SEE SHEETS C-18 TO C-20 FOR DETAILS.

NOTE:

1. SEE LANDSCAPE DRAWINGS FOR THE LOCATION OF THE PROPOSED PLANTS.
2. SEE ELECTRICAL PLAN FOR THE LOCATION OF THE PROPOSED TRANSFORMERS.

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Sheet Title:

**SITE UTILITY PLAN
WEST**

Scale: 1" = 100'

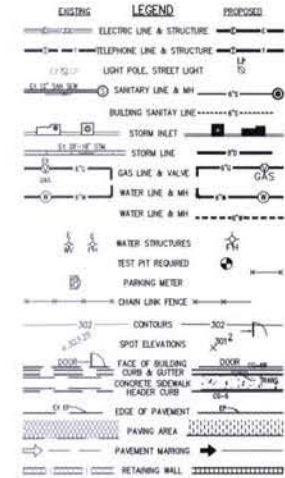
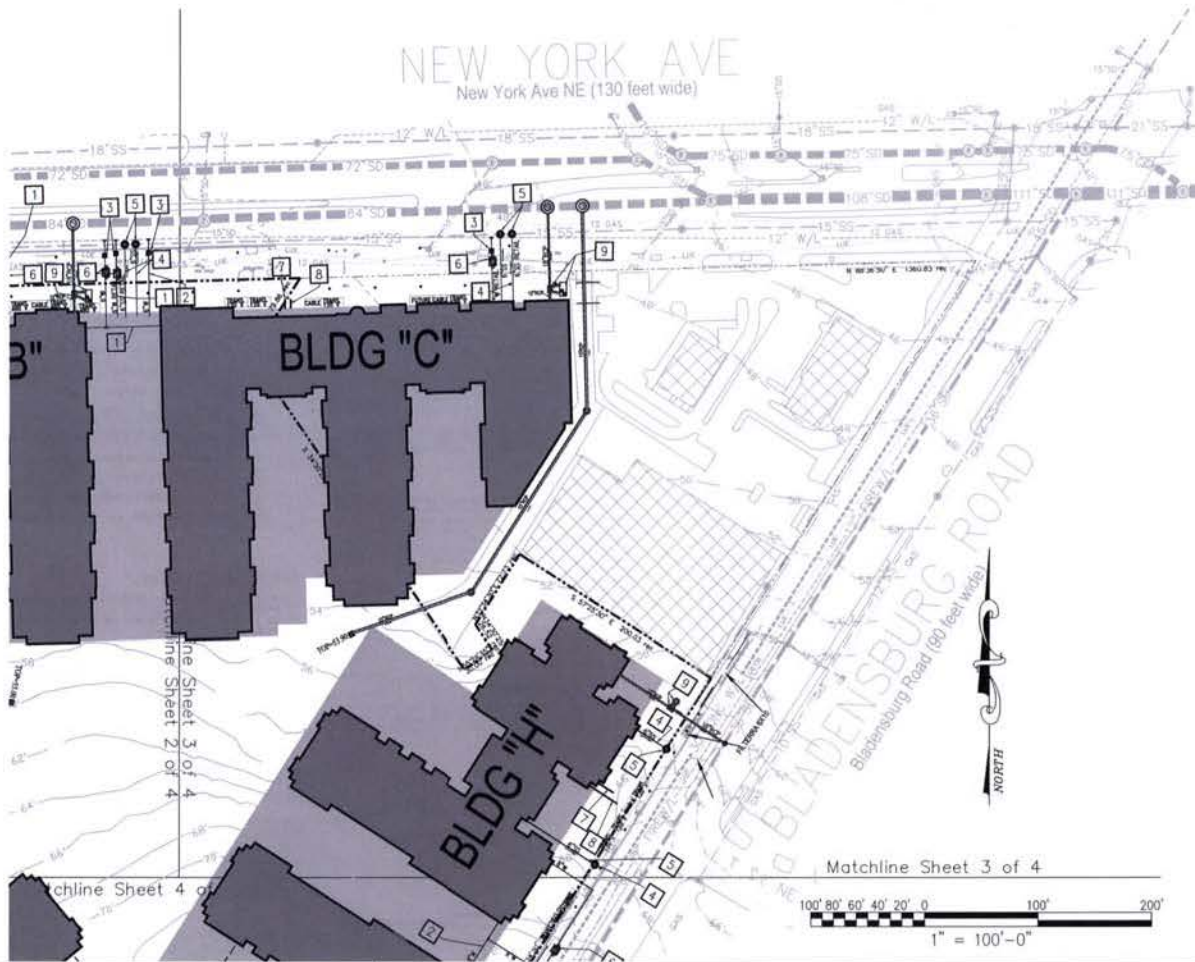
Date: 08-01-06

Job No:

144-05

Sheet No:

C.15



PROPOSED UTILITY KEYNOTE:

- [1] NEW 8" DIP CLASS 52 DOMESTIC SERVICE PER DC/WASA STANDARDS AND SPECIFICATIONS.
- [2] NEW 8" DIP CLASS 52 FIRE SERVICE PER DC/WASA STANDARDS AND SPECIFICATIONS.
- [3] NEW FIRE SERVICE AND DOMESTIC WATER VALVE CASING PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. W/20.01.
- [4] NEW PVC SCHEDULE 40 SANITARY SEWER PER DC/WASA STANDARDS AND SPECIFICATIONS.
- [5] NEW 4" DIAMETER DROPPING MANHOLE WITH DOORHOUSE BASE PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. S/20.01 AND S/20.02.
- [6] PROPOSED WATER METER PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. W/20.01 FOR DETAIL.
- [7] PROPOSED ELECTRIC CONDUIT. REFER TO ELECTRICAL DRAWINGS FOR DETAILS AND ACTUAL LOCATION. CONTRACTOR TO COORDINATE POSSIBLE ROUTING WITH PERCO.
- [8] NEW TELECOM LINE. REFER TO ELECTRICAL DRAWING FOR DETAILS. CONTRACTOR TO COORDINATE REQUIREMENTS AND POSSIBLE ROUTING WITH PERCO.
- [9] NEW STORMWATER STRUCTURES. PLEASE SEE SHEETS C.18 TO C.20 FOR DETAILS.

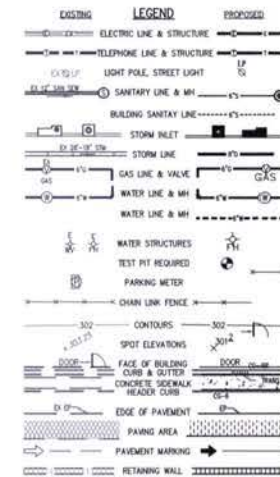
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Sheet Title:
**SITE UTILITY PLAN
EAST**
Scale: 1" = 100' Date: 08-01-06

Job No: 144-05
Sheet No:
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PROPOSED UTILITY KEYNOTE:

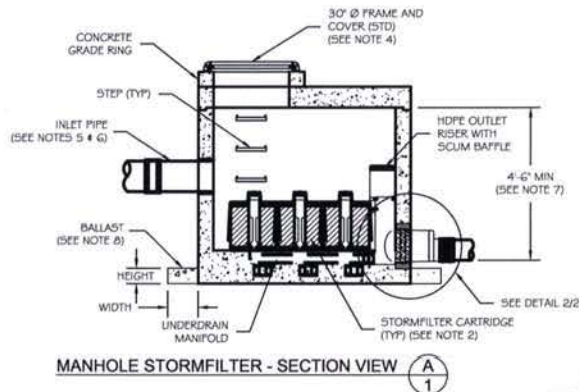
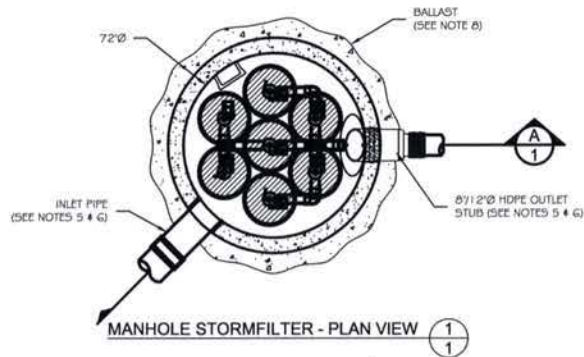
1. NEW 8" DIP CLASS 52 DOMESTIC SERVICE PER DC/WASA STANDARDS AND SPECIFICATIONS.
2. NEW 8" DIP CLASS 52 FIRE SERVICE PER DC/WASA STANDARDS AND SPECIFICATIONS.
3. NEW FIRE SERVICE AND DOMESTIC WATER VALVE CASING PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. W/20.01.
4. NEW PVC SCHEDULE 40 SANITARY SEWER PER DC/WASA STANDARDS AND SPECIFICATIONS.
5. NEW 4" DIAMETER DROP MANHOLE WITH DOORHOUSE BASE PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. S/20.01 AND S/20.03.
6. PROPOSED WATER METER PER DC/WASA STANDARDS AND SPECIFICATIONS. REFER TO DC/WASA STANDARD DRAWING NO. W/23.01 FOR DETAIL.
7. PROPOSED ELECTRIC CONDUIT REFER TO ELECTRICAL DRAWINGS FOR DETAILS AND ACTUAL LOCATION. CONTRACTOR TO COORDINATE POSSIBLE ROUTING WITH PEPCO.
8. NEW TELECOM LINE REFER TO ELECTRICAL DRAWING FOR DETAILS. CONTRACTOR TO COORDINATE REQUIREMENTS AND POSSIBLE ROUTING WITH VERIZON.
9. NEW STORMWATER STRUCTURES. PLEASE SEE SHEETS C-18 TO C-20 FOR DETAILS.

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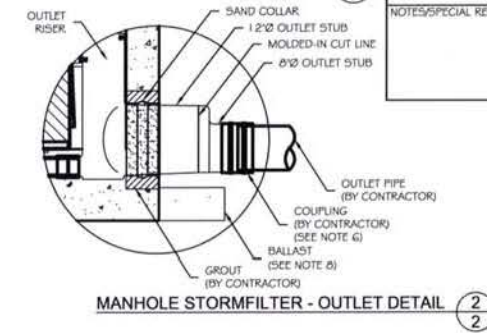
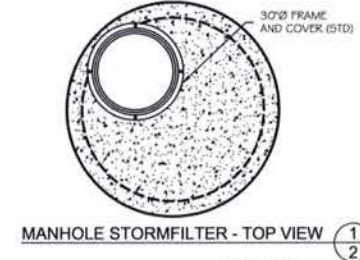
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Sheet Title:	Job No:
SITE UTILITY PLAN	144-05
SOUTH	Sheet No:
Scale: 1" = 100'	C.17
Date: 08-01-06	



**PRECAST 72" MANHOLE STORMFILTER
TOP AND SECTION VIEWS, NOTES AND DATA
STANDARD DETAIL**

- GENERAL NOTES**
- 1) STORMFILTER BY STORMWATER360 (5360), PORTLAND, OREGON 800-548-4667.
 - 2) FILTER CARTRIDGE(S) TO BE SIPHON-ACTUATED AND SELF-CLEANING. STANDARD DETAIL SHOWS MAXIMUM NUMBER OF CARTRIDGES. ACTUAL NUMBER REQUIRED TO BE SPECIFIED ON SITE PLANS OR IN DATA TABLE BELOW.
 - 3) PRECAST MANHOLE STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478. DETAIL REFLECTS DESIGN INTENT ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF STRUCTURE WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
 - 4) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
 - 5) STORMFILTER REQUIRES 2.3 FEET OF DROP FROM INLET TO OUTLET. IF LESS DROP IS AVAILABLE, CONTACT 5360. MINIMUM ANGLE BETWEEN INLET AND OUTLET IS 45°.
 - 6) INLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR. PRECAST MANHOLE STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. EIGHT INCH DIAMETER OUTLET SECTION MAY BE SEPARATED FROM OUTLET STUB AT MOLDED-IN CUT LINE TO ACCOMMODATE A 1.2 INCH OUTLET PIPE. CONNECTION TO DOWNSTREAM PIPING TO BE MADE USING A FLEXIBLE COUPLING OR ECCENTRIC REDUCER, AS REQUIRED. COUPLING BY FERNOCO OR EQUAL AND PROVIDED BY CONTRACTOR.
 - 7) PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS. IF A SHALLOWER SYSTEM IS REQUIRED, CONTACT 5360 FOR OTHER OPTIONS.
 - 8) ANTI-FLOTATION BALLAST TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR, IF REQUIRED. BALLAST TO BE SET AROUND THE PERIMETER OF THE STRUCTURE.
 - 9) ALL STORMFILTERS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.



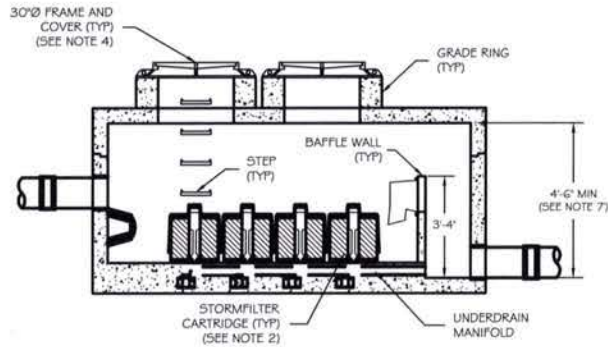
PRECAST MANHOLE STORMFILTER DATA				
STRUCTURE ID				G-1B
WATER QUALITY FLOW RATE (cfs)				0.22
PEAK FLOW RATE (<1.8 cfs)				
RETURN PERIOD OF PEAK FLOW (yrs)				
# OF CARTRIDGES REQUIRED				7
CARTRIDGE FLOW RATE (1.5 or 7.5 gpm)				1.5
MEDIA TYPE (CSF, PERLITE, ZPG)				PERLITE
BSM ELEVATION				93.20
PIPE DATA:				
INLET PIPE #1	8.0-5.8	75°	RCP	15"
INLET PIPE #2	8.0-5.8	0°	PVC	8" / 12"
OUTLET STUB	8.0-2.8	0°	PVC	8" / 12"
ECCENTRIC REDUCER (BY CONTRACTOR)				YES/NO SIZE
ANTI-FLOTATION BALLAST				NO WIDTH HEIGHT
			XX" XX"	
NOTES/SPECIAL REQUIREMENTS:			PIPE ORIENTATION KEY:	



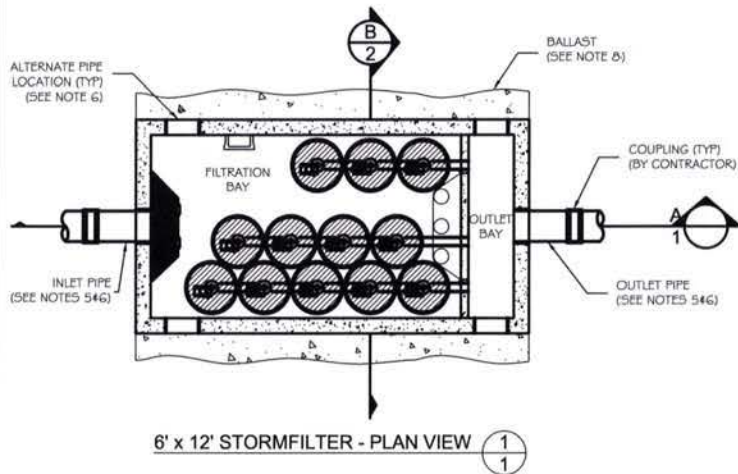
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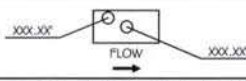
Sheet Title:	Job No: 144-05
SWM DETAILS	Sheet No: C.18
Scale: NTS	Date: 08-01-06



6' x 12' STORMFILTER - SECTION VIEW **A**
1

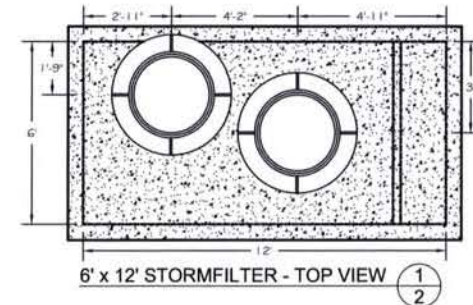


6' x 12' STORMFILTER - PLAN VIEW **1**
1

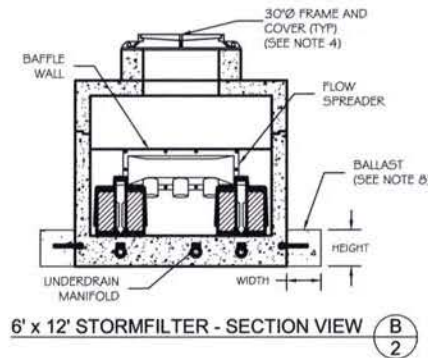
6' x 12' PRECAST STORMFILTER DATA			
STRUCTURE ID	XXX		
WATER QUALITY FLOW RATE (cfs)	X.XX		
PEAK FLOW RATE (cfs)	X.XX		
RETURN PERIOD OF PEAK FLOW (yrs)	XXX		
# OF CARTRIDGES REQUIRED	XX		
CARTRIDGE FLOW RATE (15 OR 7.5 gpm)	XX		
MEDIA TYPE (CSF, PERLITE, ZPG)	XXXXXX		
PIPE DATA:			
I.E.	MATERIAL	DIAMETER	
INLET PIPE #1	XXX.XX	XX"	
INLET PIPE #2	XXX.XX	XX"	
OUTLET PIPE	XXX.XX	XX"	
RIM			
			
ANTI-FLOTATION BALLAST			
	WIDTH	HEIGHT	
	XX"	XX"	
NOTES/SPECIAL REQUIREMENTS:			

GENERAL NOTES

- 1) STORMFILTER BY STORMWATER360; WEST: PORTLAND, OREGON (800) 548-4667; EAST: SCARBOROUGH, ME (877) 907-8676; MID-ATLANTIC: ELK RIDGE, MD (866) 740-3318.
- 2) FILTER CARTRIDGE(S) TO BE SIPHON-ACTUATED AND SELF-CLEANING. STANDARD DETAIL DRAWING SHOWS MAXIMUM NUMBER OF CARTRIDGES. ACTUAL NUMBER REQUIRED TO BE SPECIFIED ON SITE PLANS OR IN DATA TABLE BELOW.
- 3) PRECAST VAULT TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C857 AND C858. DETAIL DRAWING REFLECTS DESIGN INTENT ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF STRUCTURE WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
- 4) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
- 5) STORMFILTER REQUIRES 2.3 FEET OF DROP FROM INLET TO OUTLET. IF LESS DROP IS AVAILABLE, CONTACT STORMWATER360.
- 6) INLET AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR. PRECAST STORMFILTER VAULT EQUIPPED WITH EITHER KNOCKOUTS OR CAST-IN BOOT CONNECTIONS AT INLET AND OUTLET LOCATIONS.
- 7) PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS. IF A SHALLOWER SYSTEM IS REQUIRED, CONTACT STORMWATER360 FOR OTHER OPTIONS.
- 8) ANTI-FLOTATION BALLAST TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR, IF REQUIRED. BALLAST TO BE SET ALONG ENTIRE LENGTH OF BOTH SIDES OF THE STRUCTURE.
- 9) ALL STORMFILTERS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.



6' x 12' STORMFILTER - TOP VIEW **1**
2



6' x 12' STORMFILTER - SECTION VIEW **B**
2

6' x 12' PRECAST STORMFILTER TOP AND SECTION VIEWS, NOTES AND DATA STANDARD DETAIL

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Sheet Title:	Job No: 144-05
SWM DETAILS	Sheet No: C.19
Scale: NTS	Date: 08-01-06



Sizing Summary

Bladensburg Road Triangle
Stormwater Treatment System/Design Summary
 Washington, DC

Information provided:

- Total contributing area:
 - Type 1 impervious Rooftop = 1.239 acres
 - Type 2 impervious Rooftop = 0.752 acres
- Presiding agency = DCDOH

Assumptions:

- Design = Rational Method
- Rainfall intensity (roadways) = 0.53 in/hr
- Rainfall intensity (rooftop) = 0.32 in/hr
- C-factor = 0.95
- Media = Perlite
- Cartridge flow rate = 15 gpm
- Drop from inlet to outlet = 2.3'

Size and cost estimates:

The Stormwater Management StormFilter® is a passive siphon-actuated, flow-through, stormwater filtration system consisting of a structure that houses rechargeable, media-filled filter cartridges. The storm filter works by passing stormwater through the media-filled cartridges, which trap particulates and adsorb pollutants such as dissolved metals, nutrients, and hydrocarbons.

The StormFilter is a flow-based system, and therefore, is sized by calculating the peak water quality flow rate associated with the design storm. Using the Rational Method, the flow generated from this site was calculated as follows:

Area	Q treat	Q peak	# cartridges	Vault Size
Type 1	0.38	6.5	12	5x12
Type 2	0.23	5.2	7	72" MH

The leaders in the stormwater industry, Stormwater Management, Inc. and Vertech, Inc., have united as Stormwater360™ – the comprehensive provider of stormwater solutions. With an unparalleled product line and unmatched customer support team under one umbrella, Stormwater360 has the treatment option to meet your water quality goals.

Please note that the system requires 2.3' of drop as measured from the outlet pipe invert to inlet pipe invert. The pre-cast StormFilter has an internal bypass capacity of 1.8 cfs. If the peak discharge off the site is expected to exceed that rate, we recommend placing a high-flow bypass such as the StormGate upstream of the StormFilter. The StormGate provides a combination weir-orifice control structure to limit the flow to the StormFilter, for approximately \$5,000. The final cost would depend on the actual depth and size of the unit.

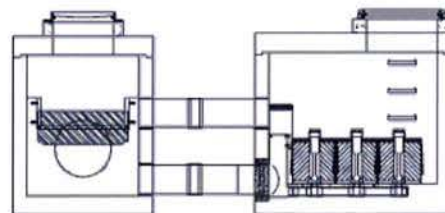
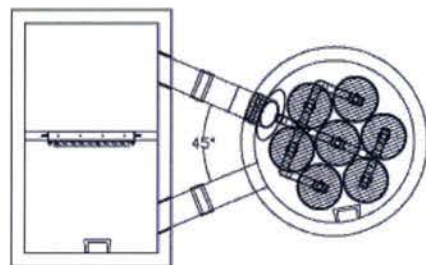
Maintenance:

The StormFilter requires regular maintenance to operate effectively. The expected maintenance interval is 12-18 months, but may vary depending on weather and site conditions. Stormwater360 offers full maintenance services to all of our clients, as well as a cartridge exchange program to facilitate owner provided maintenance. Please contact Stormwater360 or navigate to www.stormwater360.com for more information in this regard.

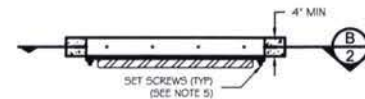


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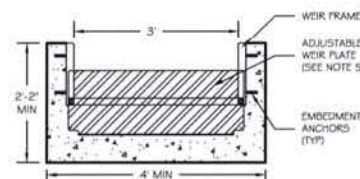
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- GENERAL NOTES
- 1) STORMGATE BY STORMWATER360 (S3GO), PORTLAND, OREGON (800) 548-4667.
 - 2) PRECAST VAULT TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C857 AND C858. DETAIL DRAWING REFLECTS DESIGN INTENT ONLY. LENGTH AND WIDTH OF VAULT WILL VARY DEPENDING ON PIPE DIAMETER AND ORIENTATION. PLEASE CONTACT S3GO TO DETERMINE VAULT SIZING AND AVAILABILITY. ACTUAL DIMENSIONS AND CONFIGURATION WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
 - 3) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
 - 4) INLET AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR. PRECAST STORMGATE VAULT EQUIPPED WITH EITHER CORED OPENINGS OR KNOCKOUTS AT INLET AND OUTLET LOCATIONS.
 - 5) CONTRACTOR TO ADJUST WEIR TO DESIGN ELEVATION SPECIFIED IN DATA TABLE BELOW. DO NOT EXCEED 5.0 FT-LBS TORQUE WHEN TIGHTENING SCREWS ON WEIR FRAME. SEAL WEIR TO FRAME WITH RTV SILICONE SEALANT AFTER FINAL ADJUSTMENT.



WEIR DETAIL - PLAN VIEW



WEIR DETAIL - SECTION VIEW

STORMGATE VAULT DATA

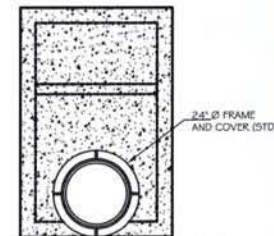
STRUCTURE ID	XXX
WATER QUALITY FLOW RATE (cfs)	X.XX
PEAK FLOW RATE, Openak (cfs)	X.XX
VAULT LENGTH	XX'
VAULT WIDTH	XX'
RIM ELEVATION	XXX.XX'

PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	XXX.XX'	XXX	XX"
INLET PIPE #2	XXX.XX'	XXX	XX"
WATER QUALITY FLOW OUTLET PIPE	XXX.XX'	XXX	XX"
PEAK FLOW OUTLET PIPE	XXX.XX'	XXX	XX"

ORIFICE TYPE (PIPE, CAP, PLATE)	XXXXXX
ORIFICE DIAMETER (in)	XX"
WEIR CRIST ELEVATION	XXX.XX'
WEIR WALL ELEVATION	XXX.XX'
HEAD COVER WISE, IT (ft)	X.XX'
WEIR at Openak	XXX.XX'
FLOOR ELEVATION	XXX.XX'

NOTES/SPECIAL REQUIREMENTS:

STORMGATE VAULT HIGH FLOW BYPASS WITH 72" MANHOLE STORMFILTER SCHEMATIC DRAWING



STORMGATE VAULT- TOP VIEW

Sheet Title:	Job No:
SWM DETAILS	144-05
Scale: NTS	Sheet No:
Date: 08-01-06	C.20

III. Filterra® Physical Description

The system consists of a concrete container, a 3 inch mulch layer, 1.5 to 3.5 feet of a unique soil filter media, an observation / cleanout pipe, an under-drain system and an appropriate type of plant i.e., flowers, grasses, shrub, or tree (see Figure 1).

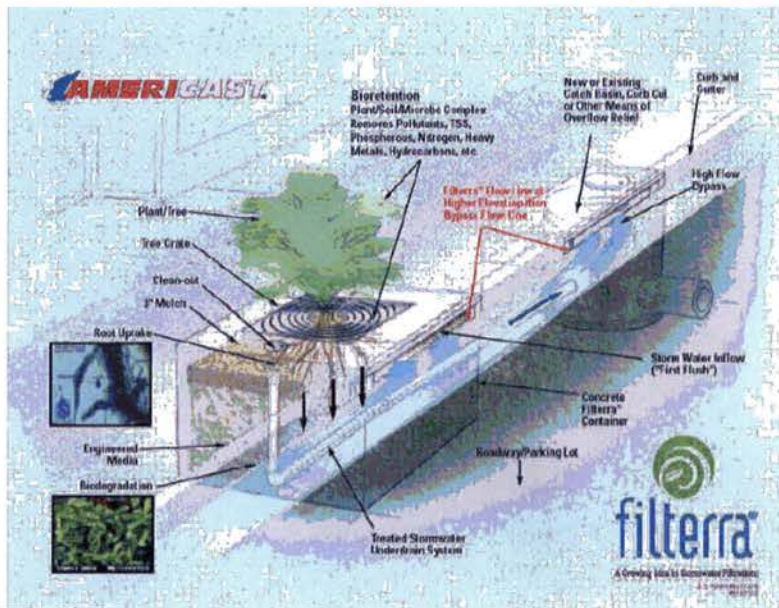


Figure 1

Stormwater runoff drains directly from impervious surfaces through an inlet structure in the concrete box and flows through the mulch, plant, and soil filter media. Treated water flows out of the system via an under-drain connected to a storm drain pipe or other appropriate outfall.

The Filterra Stormwater Bioretention Filtration System harnesses the power of nature to capture, immobilize and cycle pollutants to treat urban runoff. Trees, grasses and shrubs do more than make it attractive. They also enhance pollutant removal.

An Attractive Alternative to Conventional Systems

A unique combination of aesthetics, sound science, practical engineering and common sense make Filterra such an appealing option. Above ground, the system's shrubs, grasses or trees add beauty and value to the urban landscape. Underground, nature's complex physical, chemical and biological processes are hard at work removing a wide range of nonpoint source pollutants from urban stormwater runoff. Stormwater flows through a specially designed filter media mixture contained in a landscaped concrete container. The mixture immobilizes pollutants; those pollutants are then decomposed, volatilized and incorporated into the biomass of the Filterra system's micro/macro fauna and flora. Stormwater runoff flows through the media and into an underdrain system at the bottom of the container, where the treated water is discharged. Higher flows bypass Filterra via a downstream inlet structure or other appropriate outfall.

An Effective and Economical Technology

Filterra is similar in concept to bioretention in its function and applications, with the major distinction that Filterra has been optimized for high volume/flow treatment and high pollutant removal. It takes up little space and may be used on highly developed sites such as landscaped areas, green space, parking lots and streetscapes. Filterra is exceedingly adaptable and may be used for all developments, in all soil conditions to meet your unique stormwater filtration needs.

An Easy-Maintenance System

While the technology behind Filterra is complex, installation and maintenance are simple. A flexible, single-unit design featuring drop-in-place construction makes Filterra easy to install. Unlike competitive systems, a maintenance agreement is included with the purchase of every unit. Maintenance records are kept by Americast and are updated when maintenance is performed. Finally, unlike most stormwater filtration systems, Filterra is easy and safe to inspect. Simple, routine and inexpensive landscape care is all that's needed. No special equipment, no vacuum trucks.

A Natural Solution for Stormwater Filtration

Today's emphasis on natural solutions to environmental issues makes the Filterra Stormwater Bioretention Filtration System an idea whose time has come. Filterra represents a major breakthrough in bioretention technology, harnessing the power of nature to capture and immobilize pollutants to treat urban runoff. In developing Filterra America's foremost expert on Low Impact Development and bioretention technologies created the most efficient and cost effective natural stormwater filtration system available.